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Forage News [2010-09]

Department of Plant and Soil Sciences, University of Kentucky

COOPERATIVE EXTENSION SERVICE • UNIVERSITY OF KENTUCKY • COLLEGE OF AGRICULTURE • LEXINGTON, KY, 40546

FORAGE NEWS

UNIVERSITY OF KENTUCKY College of Agriculture

Research & Education Center
Princeton, KY 42445

For more forage information, visit our UK Forage Extension Website at: **http://www.uky.edu/Ag/Forage**

September 2010

Garry D. Lacefield and S. Ray Smith, Extension Forage Specialists • Christi Forsythe, Secretary

Lexington Welcomes National Hay Association

The National Hay Association's 115th annual convention will be September 1-4, 2010 at the Griffin Gate Marriott Hotel Resort, Lexington, Kentucky.

The NHA annual meeting will kick-off with the NHA member reception, Thursday evening in the NHA product display arena. Friday's general meeting will feature forage topics on handling quality hay. Program speakers will be Dr. Garry Lacefield, University of Kentucky; Tom Keene, University of Kentucky, Dr. Laurie Lawrence, University of Kentucky; Hayman Clayton Geralds, Hart County, Kentucky; and Dr. John Baylor (retired).

Saturday's general meeting features Evelyn Browning-Garriss, historical climatologist. Ms. Browning-Garriss is one of the most acclaimed, accurate and sought-after forecasters in the business with commercial clients throughout the world. Evelyn has been giving NHA members insight on weather patterns since 1992 and has not been proven wrong.

Make plans to attend this informative NHA annual meeting at Griffin Gate Marriott. The NHA room rate is $135.00 and reservations are a 800-228-9290 or 859-231-5100. For more information see website at www.nationalhay.org *(SOURCE: Don Kieffer, Executive Director, National Hay Association)*

Barren County to Host State Forage Field Day

The Kentucky Forage & Grassland Field Day will be September 14, 2010 on the Jim and Baker Landis farm. The farm is located at 970 Bristletown Road in Glasgow, KY. The Baker's home farm is 120 acres and one of the designated "Master Grazer Demonstration Farms". They have a commercial beef cow/calf operation. In addition, they are developing a recently purchased 191 acre farm.

Registration begins at 3:00 CDT and wagon tours start at 3:30. Stops and speakers include:

ROTATIONAL GRAZING TOUR

Layout of farm rotational grazing system -- Jim Landis
Forage species management supporting a good rotational system -- Dr. Garry Lacefield, UK Extension Forage Specialist
Watering system layout -- Kevin Laurent, UK Animal Sciences Extension Associate
Nitrogen fertilizer use to stockpile fescue pastures -- Dr. Greg Schwab, UK Extension Soil Fertility Specialist
Matching forage quality to animal's needs through fall and winter -- Dr. Roy Burris, UK Extension Beef Specialist
Evaluating Hay Quality -- Tom Keene, UK Hay Marketing Specialist

Dinner will be prepared by the Mammoth Cave Area Agriculture Extension Agents and will begin at 6:00. Two demonstrations will be offered following dinner. Demonstrations include:

DEMONSTRATIONS

1. "Tricks" when using high tensile fencing -- Jeremy McGill, Gallagher Fence Co.
2. Calibrating forage seeding drills -- Dr. S. Ray Smith, UK Forage Specialist

In addition to the tours, demonstrations and dinner, there will be several exhibitors available to discuss various forage-related topics, services and supplies.

For more information and directions to the farm, see our website at www.uky.edu/Ag/Forage or contact Field Day Chairman, Mr. Gary Tilghman, Barren County Extension office - Phone: (270) 651-3818.

Know Your Hay Quality

With fall rapidly approaching, our thoughts now turn to wrapping up the 2010 haymaking season. While some farmers will be trying to get at least one more cutting of hay in the barn, others have already completed their haymaking for this year. And while there has been a tremendous amount of hay made in Kentucky this year, much of it was late cut hay and the quality suffered a great deal. The only sure way to know the nutrient content of your hay and how to feed it correctly and economically is to have it tested in the laboratory. You can have the Kentucky Department of Agriculture do this for your hay operation by calling 1-800-248-4628. It's inexpensive ($10 per lot sampled) and they come to your farm and do the actual testing. Once you receive the results you can then balance your own ration for winter hay feeding or you can consult your local county agent or perhaps a nutritionist you may already be using for ration balancing. In today's economic climate, it just doesn't make sense to waste anything.....including hay. *(SOURCE: Tom Keene, UK Hay Marketing Specialist)*

Mob Grazing or Ultra High Density Stocking

If we have pasture 10 inches tall with good to excellent density, that is about 2,500 lbs of total dry matter per acre (250 lbs/inch * 10 inch) but we only want to use about 50%, so that gives 1,250 lbs forage dry matter per acre of useable forage.

If we have 100 cows weighing 1300 lbs, they require about 3,200 lbs forage dry matter each day to gain a little weight or produce milk (dry matter intake of 2.5% live body weight per day * herd weight)

This 100 cow herd would require 2.6 acres per day to sustain this production (3,200 lbs DM/day divided by 1,250 lbs DM/A)

This gives us a stock density of 50,000 lbs of animal live weight per acre. This is a reasonable stock density for well managed rotational grazing system with moves each day.

You have probably read in popular press about "Mob Grazing" or ultra high density stocking. This refers to producers who achieve instantaneous stock density of more than about 250,000 lbs of animal live weight per acre (less than a day grazing period). How do they do that? Some of it comes from "grazing tall grass" which most producers consider hay. However, most of this Mob Grazing is achieved by moving 5 or more times per day. Frankly, I am too lazy to do that—actually I don't see the benefit/cost advantage for most well managed pastures.

There may be situations where mob grazing is beneficial:

1) The pasture has grown too fast for the cows—common in June.
2) You have a weedy mess.
3) Forage has matured and quality is decreased to the point where livestock will not eat it uniformly.
4) Your pasture has been nuked, nothing in the soil is living, or you are grazing a mine reclamation project.

After attending the Grazing Lands Conservation Initiative conference in Reno last December and the American Forage and Grassland Council meeting in Missouri, and talking with Bruce Anderson, Jim Gerrish, and other forage specialists, I have come to some **opinions** about Mob Grazing. The problem is we don't have much data about mob grazing, most of the interest stems from anecdotal claims by a few of the progressive graziers.

The following are my opinions and concerns:

1) Ultra high density grazing is not a panacea, nor for every producer

2) It requires more intensive management than most are willing to commit. Moving cows is easy but traveling more than 1 mile more than 5 times per day will consume a lot of time.
3) It requires several moves per day, and if you are 1 hour late you have hurt production. A cow works hard to eat, regurgitate, and digest 32 lbs of forage dry matter per day (over 100 lbs fresh forage). Dry matter intake is critical for high producing livestock.
4) High stock density creates different social behavior in cows. They may all eat competitively but there are many times more opportunities for the dominant cows to hook the young heifers or cows.
5) Claims of benefits to "soil health" are mostly anecdotal. I want to see data on soil bulk density and water infiltration rate, etc. before I recommend this practice.

In summary, there may be situations where mob grazing is recommended, but I don't see an advantage for the well-managed rotational grazing system. Remember that Management-Intensive Grazing (MiG) has emphasis on intensive management (not grazing). Livestock graze intensively by nature, their lives depend on it.

If you know of some data or think I am wrong, please let me know. *(SOURCE: Glenn Shewmaker, Extension Forage Specialist, University of Idaho)*

New Items on Forage Website

Several new videos and powerpoints have been added to our Forage Website under "Decision Aids". Forage Videos and Powerpoints include:

1) How Grass Grows VT Model 1
2) UK Orchardgrass Grazing Time Lapse Video
3) Orchardgrass Grazing Response
4) UK Tall Fescue Time Lapse Movie High Resolution
5) Tall Fescue Grazing Response
6) UK Tall Fescue vs Orchardgrass High Resolution Movie
7) Tall Fescue and Orchardgrass Grazing Response
8) UK Forage Seedling Growth Movie High Resolution
9) UK Forage Seedling Growth Still Images

Grazing Graduates

Beating the heat and summer slump were the big topics at the most recent Kentucky Grazing School held August 9-10 in Versailles, KY. Forty-one participants came to learn more about rotational grazing, portable fence and water systems, the growth of grasses and legumes, and how to extend the grazing season. Participants had the opportunity to use various tools in measuring forage availability, and saw first-hand how paddock size and shape impacts forage utilization. Producers Tom Greathouse, Buddy Smith, and Will Bowling also shared their experiences with various grazing systems such as grazing corn and co-species grazing. Be sure to visit the UK Forage website, www.uky.edu/ag/forage, or talk to your county agent to find upcoming Kentucky Grazing Schools for 2011.

Who says "Cats" can't attend U.K. Grazing School

My thanks to Adam Probst our U.K. Grazing School coordinator for leading another successful Grazing School. He did a great job summarizing the school in the previous paragraph. Now, the rest of the story: Christopher Geralds, hay-beef producer from Hart County was one of the producers who attended. He drove from Hart County to Woodford County and arrived around 7:15 a.m. EST. It was a very hot day and we completed our classroom and field activities around 6:00 p.m. When Chris went to his truck, he heard a "meow" and a cat came from under the truck. It was his daughter Shannon's cat that had ridden somewhere on, in or under the truck. Chris got the cat some food and water and took it with him to the motel. He arrived the next morning and parked his truck in a shady-secure spot and left food and water under the truck. Just before our session started, someone announced from the back of the classroom – "if anyone brought a cat with them, we have found it in the parking lot and taken it to the Humane Society". Chris claimed the cat and indicated he would pick it up at the end of the day. Chris and the cat made it home safely and daughter Shannon was very happy. Rumor has it the cat is going around Hart County bragging about it's "ROAD TRIP".

It's Not Too Late For N On Grasses

Many areas across the state have received some rain. Many places have sufficient moisture for pasture grasses to have greened up and making some growth. Our standard recommendation is to add nitrogen for stockpiling in mid-August for most efficient results assuming moisture is available. The following table was excerpted from our U.K. AGR-162 publications and is available on our website and in Extension offices.

Effect of time of nitrogen application on production efficiency of KY 31 tall fescue.

Date N Applied	Nitrogen Efficiency Lb DM*/lb N added
Aug 1	27.2
Aug 15	25.8
Sep 1	19.2
Oct 1	10.8

* Dry matter.

For more information on cost and returns from nitrogen application see "Profitability of Nitrogen Applications for Stockpiling Tall Fescue Pastures" on our website http://www.uky.edu/Ag/Forage/StockpilingFescue.pdf

Choose the Best Forage Variety for Fall Planting

Check with your county agent for a copy of the most current Forage Variety Test Reports or go to www.uky.edu/Ag/Forage for the current report or all yearly reports from 2001-2009. One of the most useful reports is the Summary Report that contains all of the variety testing information for the last 10 years in easy to read comparative tables for each species.

We want to especially thank Mr. Gene Olson for his excellent management of the largest forage variety testing program in the eastern U.S.

Potential for High Nitrates

Nitrate toxicity typically occurs during drought conditions when warm season annual grasses including corn have received N applications designed for maximum yield. Nitrate is the form that most nitrogen is taken up into the plant, but under severe drought conditions nitrate accumulates in the plant (particularly the lower 1/3) and cannot be converted into protein. When ruminant livestock consume high nitrate forages, the nitrate is converted into nitrite and once in the bloodstream, nitrite causes a restriction in the ability of the blood to carry oxygen. Without oxygen to the body the animal dies.

The current recommendations from the UK Livestock Disease Diagnostic Center (LDDC) are shown below. Some labs or other publications report slightly lower safe levels for nitrates in forages depending on local or regional conditions. If in doubt, it is always best to consult your local vet.

- Forages with <5,000 ppm (0.5%) nitrate concentration on a dry weight basis are generally safe for cattle. Be cautious with pregnant and young animals when nitrate concentrations approach 5,000 ppm and dilute with other feeds.
- Forages containing < 10,000 ppm (1%) but > 5,000 ppm (0.5%) nitrate on a dry weight basis should be diluted with other feeds and introduced slowly. Limit to a maximum of 50% of total dry matter in pregnant animals.
- Total dietary nitrate concentrations > 10,000 ppm (1%) on a dry weight basis are dangerous and can cause acute nitrate poisoning in cattle.
- All sources of dietary nitrate including feeds, forages and water should be taken into consideration when determining total dietary nitrate concentration.

Fortunately, when high nitrate forage crops are ensiled nitrate levels drop by 30 to 60%. If you suspect the potential for high nitrate with silage or haylage, first complete the ensiling process, then sample the forage and send to a certified lab. Remember though that nitrate levels do not drop during the hay making process.

In Kentucky most producers and county agents submit samples for nitrate testing to the LDDC in Lexington or the Breathitt Lab in Western Kentucky. Make sure to follow the recommended procedures listed by each lab for submitting samples. With nitrates, it is very important to keep the sample cool and make sure it is taken directly to the lab or sent by overnight mail. Improperly submitted samples can give false readings.

Upcoming Events

SEP 1-4	National Hay Association Annual Conference, Lexington
SEP 14	KFGC Field Day, Barren Co., KY
SEP 23	UK Beef Bash, UK Res. & Education Center, Princeton
OCT 2	2010 Mountain Ag Field Day, UK Robinson Center, Jackson
2011	
JAN 25-26	Heart of America Grazing Conference, Louisville
FEB 24	31st Kentucky Alfalfa Conference, Lexington

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